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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/666,737      | 09/19/2003  | Andrew Dennis Barton | 1-24741             | 6062             |

4859 7590 05/13/2004

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EXAMINER

BEAULIEU, YONEL

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3661

DATE MAILED: 05/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/666,737 | <b>Applicant(s)</b><br>BARTON ET AL. |  |
|                              | <b>Examiner</b><br>Yonel Beaulieu    | <b>Art Unit</b><br>3661              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
- 2a) ☐ This action is FINAL.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 10-12, 14 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 7, 9, 13, 15 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/19/03</u> . | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 3, 5, 6, 8, 11, 12, 14, 16 – 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al. (US 5,528,497).

Regarding claim 1, Yamamoto teaches a steering assistance controller for the generation of a compensating torque which assists a vehicle driver in overcoming the tendency of a vehicle to oversteer (abstract at least) comprising a steering controller (20; figs. 1-2) adapted to be connected to the vehicle steering system (formed by items 1, 3 – 5; see fig. 1), the controller operative to encourage the driver (operator) to steer the vehicle back to a non-oversteering condition through application of the torque that is at least based in part upon the vehicle state information (fig. 3; summary; col. 4: 27 – 40; col. 6: 48 – 63 at least).

Regarding claims 2, 3, 5, 6, 8, 11, 12, 14, and 16 – 18, Yamamoto et al. further teaches the vehicle state information is comprised of at least one of estimated vehicle yaw rate (sensed by item 18), lateral acceleration (sensed by item 17), steering wheel angle (sensed by item 15; overall, see figs. 1-2; col. 4: 54 – 67 at least); the lateral acceleration being measured a phase detection device (not explicitly shown) – the

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phase difference being used for calculation of the magnitude (angle) of the overteer (col. 5: 31 – col. 6: 7 at least); the oversteering determination being based upon representation of models of the vehicle (col. 8: 1 – 63 at least); applying a pulse input that generates a nudge indicating application of the steering control (col. 1: 30 – 52 at least); the steering being controlled by way of closed loop control (see fig. 3); the controller including logic comprising a threshold (limit) for the activation and deactivation of the steering control (col. 5: 31 – 39; col. 6: 8 – 20; and col. 8: 28 – 35 at least).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto ('497) as applied to claim 1 and further in view of Nakano et al. (US 6,349,789 B1).

As discussed above, Yamamoto teaches all of the limitations except for the inclusion of brake intervention.

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However, Nakano teaches, in the same field of endeavor of steering controller, that the general concept of including a braking system in a steering system is known (note col. 3: 6 – col. 4: 5 at least).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yamamoto's teaching by including the braking system as evidenced by Nakano in order to enhance the stabilization of the vehicle.

#### ***Allowable Subject Matter***

Claims 7, 9, 13, 15, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. A statement of reasons supporting the allowable subject matter will be provided in response to this Office action.

#### ***Conclusion***

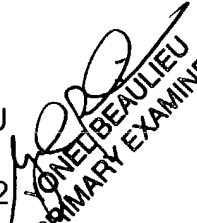
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yonel Beaulieu whose telephone number is (703) 305-4072. The examiner can normally be reached on M-R, from 0900-1600.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas BLACK can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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